

CONFLICTS OF WOMEN HEALTH IN TEENAGE PREGNANCY

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ABSTRACT

Background: Early marriage and subsequent pregnancy is desired in Pakistan and is generally considered a blessing but it also carries some risks to the mother and resultant product.

Objective:

To determine the frequency of teenage pregnancy and complications it imposes on teenage mother when compared with non teenage mothers.

Materials & Method:

It is a descriptive comparative study. A review of hospital record from 1st January 2008 to 31st December 2008 was carried out to compare the obstetric complications in 212 teenage pregnant mothers with that of 4052 non teenage mothers

(Mothers =20 years of age)

Result:

Prevalence of teenage pregnancy was 4.97% of the total pregnancies occurring at Sobhraj Maternity Hospital during the study period. 73.11% of all teenage mothers were primigravida and 48.58% followed the proper antenatal care. Teenage pregnant mothers had significantly increased incidence of anemia, preterm labor, pregnancy induced hypertension, pre-eclampsia and decreased inci-

dence of glucose tolerance as compared to non teenage mothers. Risks of ante partum hemorrhage (APH), post partum hemorrhage (PPH) and placenta previa were found similar in the two groups.

Conclusion:

the results indicated that the risks of complications of pregnancy like anemia, preterm labor, pregnancy induced hypertension and pre eclampsia were more in teenage pregnant mothers. This requires increased need of Pakistani communities to review and consider the correct age marriage, so that the health of pregnant mothers can be protected. A healthy mother is necessary to bring up a healthy child.

Key words:

Teenage pregnancy, Pregnancy complications, Women health

INTRODUCTION

Teenage pregnancy is defined as a teenage or underage girl (usually within the ages of 13 – 19 yrs.) becoming pregnant¹. It generally refers to women who have not attained the adult hood or it may be regarded as transition from childhood to adulthood². WHO, has defined the teenage or adolescence as the period between 10-19 yrs³.

Teenage pregnancy is a public health concern both in developed and developing countries of the world^{4,5,6}. Early marriage is far more common in South Asian countries and family generally desires to have a child soon after marriage making the sound reason of high proportion of teenage pregnancies in this part of the world^{7, 8, 9}. In the developing world one third to one half of women become moth-

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ers before the age of 20 and pregnancy related complications have become the leading causes of death among them^{10,11}. In Pakistan, girls of adolescence age become pregnant after a legal wedlock which is in contrast to the situation in developed countries and does not involve the social stigma due to cultural, religious, low literacy rate, early menarche and traditional gender role. In rural areas of Pakistan, practice of early marriage is commonly observed as compared to urban areas. Teenage girls are themselves developing, considered physically and psychologically immature for reproduction, so carry high risk if become pregnant². Previous studies of pregnancy complications in teenage mothers have yielded conflicting results¹². Several medical complication like preterm birth, poor maternal weight gain, pregnancy- induced hypertension, anemia and sexually transmitted disease are strongly associated with teenage pregnancy³. Within South Asian countries Bangladesh has the highest teenage pregnancy rate that is 35% followed by Nepal and India each 21%¹³. We do not have exact national figures of it but small studies yielded a high rate¹⁴. Although teenagers represent a large proportion of population in the developing countries, still relatively little is known about their sexual knowledge and experience and the risk associated with the teenage pregnancy¹⁵. Becoming pregnant at an early age can change the direction of a young woman's own development. Poverty, illiteracy, culture and extended family structure are the factors somehow related to teenage pregnancy¹⁶. In South Asian Countries like Pakistan, India and Bangladesh early marriage and childbearing are desired and common in most part of the society and this may be due to the fact that the parents want to avoid unhappy incident (rape) or unwanted relationship. In Pakistan legal age for marriage for female is 16 yrs, however many families and tribal customs break the law and girls are wed locked before the actual age of marriage. Marriage laws in Pakistan are unenforceable & have limited effectiveness. Teenage pregnant mother encounter a greater risk of obstetric complications than women in their twenties and risk increases when the women is

poor, having inadequate diet and least opportunity for prenatal care². Decision regarding the pregnancy & reproductive performance are not controlled by the women. Husband and mother in law are the key decision maker. Most teenage girls are not fully aware of family planning methods and if aware, they do not have easy access to family planning services or can't utilize them due to inhibition and pressure to attain motherhood to satisfy their mothers in law or husbands¹⁷. Our study was conducted in a government sector maternity hospital with aim to assess & compare magnitude of associated complication of teenage & non teenage pregnancies.

MATERIALS & METHOD

In this descriptive comparative study, the case record of all pregnant mother who delivered in Sobhraj Maternity Hospital in 2008 (1st Jan – 31st Dec 2008) were reviewed. The major pregnancy complications were compared between the teenage mother and the non teenage mother who delivered in the same period. The teenage mother group consisted of teenage women aged 13 – 19 yrs and the non teenage group comprised of adult women age 20 or more irrespective of either primigravida or multigravida. Both the study and the control group consisted of 212 teenage women and 4052 non-teenage women respectively who delivered at Sobhraj Maternity Hospital from January 1st, 2008 to December 31st, 2008. Variables compared included iron deficiency anemia, preterm labor, pregnancy induced hypertension, Pre -eclampsia, Ante partum hemorrhage (APH), Post partum hemorrhage (PPH), placenta previa and glucose intolerance.

Data were analyzed using computer package SPSS (Statistical Program for Social Sciences) version 10.5 and Chi-square & fisher's exact test were used to calculate the p value for comparison of two groups.

RESULT

During the period from January 1, 2008 to December 31, 2008 there were 4264 deliveries at Sobhraj Maternity Hospital out of which 212 (4.97%) were teenage mothers and remaining 4052 (95.03%) were non-teenage. All 212 teenage mothers were married and majority of them were housewives. The mean age of teen mother was 17.9 years (Range from 14-19).

Majority of teenage pregnant mother were primigravida that is 155 (73.11%); 103 (48.58%) of teenage mothers were booked while 109 (51.41%) of them were non-booked or referred from primary health care centre and patient set-up for management of complications. Booked cases were those who visited the hospital three times or more before delivery.

Preterm labor was the most common pregnancy complication in teenage mothers when compared to non-teenage mother followed by iron deficiency anemia, pregnancy induced hypertension and pre-eclampsia etc. Post-partum hemorrhage, Ante-partum hemorrhage and placenta previa did not show any marked difference. Incidence of glucose tolerance was low among the teenage mother when compared to non-teenage mother (Table I).

**TABLE- I:
PREGNANCY COMPLICATION IN TEENAGE
& NON-TEENAGE MOTHERS**

Complications	Teenage (n = 212)	Non- Teenage (n = 4052)
Preterm labor	45 (21.2%)	398 (9.8%)
Iron deficiency anemia	44(20.7%)	512 (12.6%)
Pregnancy induced hypertension (PIH)	23 (10.81%)	128 (3.1%)
Pre-eclampsia	05(2.36%)	35 (0.86%)
Ante-partum Hemorrhage (APH)	02 (1%)	21 (0.52%)
Post-partum Hemorrhage (PPH)	01 (0.47%)	10 (0.24%)
Placenta previa	01 (0.47%)	25 (0.6%)
Glucose intolerance	01 (0.47%)	43 (1.06%)

Teenage pregnant mother had statistically significant increased incidence of preterm labor, iron deficiency anemia, pregnancy induced hypertension

(PIH) and pre-eclampsia when compared with the non-teenage mother (Table II).

**TABLE II:
STATISTICALLY SIGNIFICANT VALUES OF
PREGNANCY COMPLICATIONS BETWEEN
THE TWO GROUPS**

Complications	Teenage (212)	Non- teenage (4052)	P-value*
Preterm labour	45	398	0
	167	3654	
Iron deficiency anaemia	44	512	0
	168	3540	
Pregnancy induced hypertension (PIH)	23	128	0
	189	3924	
Pre-eclampsia	5	35	0.027

* P – VALUE < 0.05 IS SIGNIFICANT

There was no statistically significant difference between the two groups (Teenage & non-teenage) regarding the complications of Ante-partum Hemorrhage (APH), Post-partum Hemorrhage (PPH), Glucose intolerance and placenta previa.(Table III).

**TABLE III:
STATISTICALLY NON-SIGNIFICANT VALUES OF
PREGNANCY COMPLICATIONS BETWEEN THE
TWO GROUPS**

Complications	Teenage (212)	Non-teenage (4052)	P-value*
Ante-partum Hemorrhage(APH)	2	21	0.731
	210	4031	
Post-partum Hemorrhage (PPH)	1	10	0.529
	211	4042	
Placenta previa	1	25	0.851
	211	4027	
Glucose intolerance	1	43	0.631

* P – VALUE < 0.05 IS SIGNIFICANT

DISCUSSION

Teen pregnancy carries far reaching consequences for mother as well as the child and is often considered as "all-risk pregnancy". Approximately 10% of all birth occurs in teenage mothers' world wide¹⁸. Frequency of teenage pregnancy in our study was found to be 4.97% which is

lower than the world wide range as well as the study conducted in our neighboring countries i.e. Bangladesh shows 35%, India & Nepal 21%¹³. Two reasons seem plausible that is the study being conducted in an urbanized area where awareness about the female education is raised and even in the presence of strong family system, cultural customs are being abolished. Now a day in Pakistan the trend of marriage is a little bit changed and girls are not wed locked until they get their graduation. Childbearing in Pakistan is observed after the legal wedlock which seems to be the one of the most important reason that we have lower prevalence of teen age pregnancy.

It is estimated that nearly half of women under 18 do not receive prenatal care until the 2nd trimester of pregnancy and 2% have no prenatal care at all¹⁸. In our study similar trend was found and review of cases showed that 48.58% cases were booked while 51.41% cases were non-booked and referred from the primary health centers for the management of complications.

Many studies conducted on the consequence of teenage pregnancy, yielded that mother face higher risks of complications of child bearing in teenage than mother over 20 years of age. Sharma et al identified that the risk of pregnancy complications was 2.5 times higher among the pregnant teenagers compared to mother in their twenties¹⁹.

In both the developed and developing countries it has been noticed that teenage pregnancies are associated with increase risk of preterm deliveries¹⁸. In our study the incidence of preterm delivery in teenage pregnant mothers was found almost double than in the mothers above 20 (21.2% v 9.8%: p value < 0.000). Shrestha²⁵ reported 3 % in teenage mothers compared to 1% in mother above 20 and Goonewardene et al²⁶, in 2005 reported 19% in teenage mothers compared to 11% in older mother which was marginally significant (P 0.06%). Our study showed 21.2% incidence of preterm delivery which is more or less similar to Nahathai W. et al¹², Eure et al²⁷ suebnukarn et al²³ Hedgier et al²⁸ and khanavitikul et al²⁹. This risk may result

from inadequate prenatal care, nutritional deficiencies, socioeconomic status and education.

Anemia is a common complication of teenage pregnancy³. Our study revealed that the teenage mother had a significantly higher incidence of anemia as compared to non-teenage mothers (20.7% v 12.6%: p value < 0.000), similar to that found by Nahathai et al¹², suebnukarn et al²³ and Berenson et al.²⁴ Osbourne et al observed a highly significant increase in the incidence of anemia (P<0.001) in pregnant teenagers, 11.1 % as compared to 5.2% in the 20 – 24 years old age group²⁰.

Another study by Bratati et al² also observed the similar finding but the incident as whole was higher in both the groups than that observed by Osbourne²⁰. Ghosh³¹ observed little difference while pachaure²¹ found lower incidence of anemia among teenagers than in women over twenties.

This study revealed that the frequency of pregnancy induced hypertension (PIH) (10.81% v 3.1%: P value < 0.000) and pre-eclampsia (2.36% v 0.86%: P value < 0.027) were significantly higher in teenage mother than non teenage mothers. This is in accordance to most of the studies conducted in South Asian countries¹⁶. Goonewardene et al²⁶ in a Srilankan study demonstrated PIH 13% and pre eclampsia 5% which was significantly high (P<0.001 & P=0.03) among the teenage pregnant mother compared to women in their twenties (3% & 1% respectively). Study by S.Ziadeh³⁰ demonstrated that the incidence of complications like PIH & pre eclampsia were similar in both control and study group. Eure et al²⁷ found that common complication of teenage pregnancies were preterm labor & pre eclampsia.

Study of Nahathai et al¹² found the incidence of post partum hemorrhage in teenage pregnant mother 0.4% compared to 0.3% in non-teenage group and placenta previa 0.7% in teenage mother compared to 0.3% in non teenage mother is very closed to our findings. Our study showed post partum haemorrhage 0.4 % in teenage mother compared to 0.24% in non-teenage mother. No marked

difference has also been noticed in ante partum hemorrhage between the two groups which is in line with the study by S.Ziadeh³⁰.

Incidence of Glucose intolerance (Gestational Diabetes) in our study is low (0.47% V 1.06%; p value < 0.631) which is in accordance with the study conducted by S.Ziadeh³⁰. One of the explanations may be that with the increasing age women are prone to develop diabetes who are already having family history.

Despite the increased risk associated with young maternal age effect could be mitigated and better obstetric outcome anticipated by appropriate prenatal care, provision of health facilities and full support form the family.

CONCLUSION

Pregnant teenagers are definitely at greater risk requiring additional efforts and resources to save and protect their total health. They need more attention for the prevention and treatment of Anemia, prematurity, pre-term labor, PIH and pre eclampsia. Parents should be encouraged to include their children while making decision regarding marriage and whole family should consider that teenage is too early for marriage as female themselves are not fully matured physically & mentally to bear a child at this stage.

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